

Amendment to the Specification

In the Specification:

Please amend the specification as follows:

On Page 13, the paragraph beginning at line 7, should be replaced with the following.

The minimum radii and the maximum radii of a contour are defined as:

$$MinRadii = \frac{1}{2\delta} \sum_{i=l_{min}-\delta}^{l_{min}+\delta} Radius(i) \quad (4)$$

$$MaxRadii = \frac{1}{2\delta} \sum_{i=l_{max}-\delta}^{l_{max}+\delta} Radius(i) \quad (5)$$

where δ is a neighborhood ~~100~~ around a minimum radius location l_{min} , and the maximum radius location l_{max} , as shown in **FIGURE 6**:

$$l_{min} = \arg \min_{i=1,2,\dots,N} (Radius(i)) \quad (6)$$

$$l_{max} = \arg \max_{i=1,2,\dots,N} (Radius(i)) \quad (7)$$

On Page 17, the paragraph beginning at line 3, should be replaced with the following.

The complexity descriptors characterize the relationship between two dimensional distances, i.e., lumen radii to outer boundary radii, or wall thickness to outer boundary radii. The complexity descriptors include lumen-wall descriptors, and thick-wall descriptors, which show relative variance between lumen boundary shape to outer wall boundary shape, and wall thickness shape to wall boundary shape. As noted above, **FIGURES 7A-7D** ~~FIGURES 7A-7D~~ schematically illustrate such variances.

On Page 21, Table 3 should be replaced with the following.

Table 3 PRSD of the descriptors: 1 volunteer imaged at 3 different facilities.

Descriptors	PRSD	Mean	Descriptors	PRSD	Mean
LumenArea <u>LumenArea</u>	3.71%	30.84	WMinDev	2.05%	0.11
OuterArea	3.28%	61.30	WMaxDev	1.73%	0.08
LORatio	1.87%	0.50	Mean[]Thick	5.53%	1.27
WallArea	6.06%	30.46	Min[]Thick	6.26%	0.84
MeanLRadii	1.93%	3.11	Max[]Thick	6.17%	1.80
MinLRadii	2.77%	2.67	TMMThick <u>TMMDev</u>	3.00%	0.53
MaxLRadii	3.25%	3.46	TDMDev <u>TMcanDev</u>	2.95%	0.19
LMMRadii <u>LMMDev</u>	3.07%	0.20	TMinDev	2.13%	0.34
LDMDDev <u>LMcanDev</u>	1.16%	0.07	TMaxDev	3.93%	0.29
LMinDev	2.31%	0.13	MinLW	1.79%	0.61
LMaxDev	1.63%	0.09	MaxLW	2.29%	0.78
MeanWRadii	1.58%	4.40	MeanLW	1.37%	0.70
MinWRadii	2.82%	3.89	MinTW	1.06%	0.19
MaxWRadii	2.32%	4.85	MaxTW	2.39%	0.41
WMMRadii <u>WMMDev</u>	2.74%	0.18	MeanTW	1.38%	0.29
WDMDev <u>WMcanDev</u>	1.04%	0.06	EccentricityW	1.30%	0.05

On Page 22, Table 4 should be replaced with the following.

Table 4 PRSD of the descriptors of fifteen patients (different analysts).

Descriptors	PRSD	Mean	Descriptors	PRSD	Mean
LumenArea	6.44%	36.67	WMinDev	2.65%	0.12
OuterArea	5.85%	85.75	WMaxDev	2.32%	0.10
LORatio	3.02%	0.42	Mean[[]]Thick	8.68%	1.82
WallArea	10.19%	49.09	Min[[]]Thick	11.55%	0.98
MeanLRadii	3.23%	3.32	Max[[]]Thick	11.18%	2.90
MinLRadii	4.93%	2.79	TMMThick <u>TMMDev</u>	5.26%	0.63
MaxLRadii	4.34%	3.83	TDMDDev <u>TMeanDev</u>	4.26%	0.27
LMMRadii <u>LMMDev</u>	3.85%	0.26	TMinDev	5.58%	0.44
LMDDev <u>LMeanDev</u>	1.43%	0.09	TMaxDev	4.68%	0.35
LMinDev	3.08%	0.16	MinLW	2.74%	0.54
LMaxDev	2.27%	0.12	MaxLW	3.32%	0.73
MeanWRadii	2.87%	5.17	MeanLW	2.40%	0.64
MinWRadii	3.77%	4.49	MinTW	2.06%	0.19
MaxWRadii	4.32%	5.81	MaxTW	5.87%	0.56
WMMRadii <u>WMMDev</u>	3.87%	0.21	MeanTW	2.42%	0.36
WDMDDev <u>WMeanDev</u>	1.40%	0.07	<u>EccentricityW</u>	3.46%	0.11